This section includes a surface-mounted grid system of plastic (PVC) grid and accessories. Systems are typically non-fire rated, consult manufacturer for fire rated options.

This section includes proprietary and descriptive type specifications. Edit to avoid conflicting requirements.

Ceiling panels specified in another section.

Part 1 General

1.1 SECTION INCLUDES

A. Surface-mounted plastic grid assembly, attachment devices, and perimeter trim.

B. Grid Style: Mechanically fastened [exposed bottom runner][semi-concealed bottom runner, recessed][semi-concealed bottom runner, recessed, beveled].

1.2 RELATED SECTIONS

In this article, indicate those sections that inter-rely on this section. The listing below is only partial and should be edited to include those sections specific to the project that describe subjects or products that affect this section directly.

A. Section 06 11 00 - Wood Blocking: Blocking and shims attached to substrate to support attached ceiling to a level plane.

B. Section [_______-__________]: Placement of special anchors or inserts for supporting ceiling grid system.

C. Section 07 92 00 - Joint Sealants: Acoustic sealant for perimeter edge seal.

D. Section 09 51 13 - Acoustical Panel Ceilings: Acoustic units required for ceiling.

E. Section 09 54 33 - Decorative Panel Ceilings: Ceiling panels.

F. Section [_______-__________]: [Acoustic] partition system with head rails [attached to] [within] ceiling assembly.

G. Section [21 13 00] [_______] - Sprinkler Systems: Sprinkler heads in ceiling system.

H. Section [23 37 00] [_______] - Air Outlets and Inlets: Air diffusion devices in ceiling system.

I. Section [26 51 00] [_______] - Interior Luminaires: Light fixtures in ceiling system.

J. Section [27 51 00] [_______] - Public Address and Music System: Speakers in ceiling system.
1.3 REFERENCES

Specifiers are reminded that code standards are minimum standards, and if applicable to the specified Product(s), citing the latest version may be appropriate even though the latest version may be different from what is included in the applicable codes. Edit this article after editing the rest of this section. Only list reference standards below, that are included within the text of this section, when edited for a project specification - delete other references that do not apply.


G. Ceilings & Interior Systems Contractors Association (CISCA):


I. UL Fire Resistance Directory.

J. United States Food and Drug Administration (USFDA).

1.4 ADMINISTRATIVE REQUIREMENTS

A. Section [01 31 00]: Project management and coordination procedures.

B. Coordination:
   1. Coordinate with other work having a direct bearing on work of this section.
   2. Coordinate above-ceiling mechanical and electrical work for placement of anchors.
   3. Coordinate the work with Section [09 51 13][09 54 33] for installation of ceiling panels.

C. Work scheduling: Sequence work to ensure ceilings are not installed:
1. until building is enclosed,
2. sufficient heat is provided,
3. dust generating activities have terminated, and
4. overhead work is completed, tested, and approved.

### 1.5 SUBMITTALS FOR REVIEW

Do not request submittals if this specification section or drawings sufficiently describe the products of this section - or if proprietary specifying is used. This requested review of submittals increases the possibility of unintended variations to the contract documents, thus increasing a consultant’s liability. The following submittals are intended for review to determine eligibility for the project.

| A. | Section [01 33 00]: Submission procedures. |
| B. | Shop Drawings: Indicate grid layout and related dimensioning, junctions with other work, interrelation of mechanical and electrical items related to system and [______]. |
| C. | Product Data: Provide data on grid system components and accessories. |
| D. | Samples: Submit [two] [_____] samples each, [<200 mm><<8 inches>>] long of grid system [top hanger,] [main runner,] [cross tee,] [wall molding,] and [______]. |

### 1.6 SUBMITTALS FOR INFORMATION

The following submittals are for information only; do not request these submittals if the information submitted will be assessed for acceptability.

| A. | Section [01 33 00]: Submission procedures. |
| B. | Installation Data: Manufacturer's special installation requirements, including special procedures, perimeter conditions requiring special attention [and [____]]. |
| C. | Sustainable Design: |
| 1. | Section [01 35 18]: LEED documentation procedures. |
| 2. | Provide required LEED documentation for Product [recycled] content. |

### 1.7 MAINTENANCE MATERIAL SUBMITTALS

| A. | Section [01 78 40]: Maintenance and extra material requirements. |
| B. | Extra Stock Materials: Provide [<_____] m><[_____] feet>> of extra suspension main and cross runners and [5] [_____] percent of all trim and accessories provided for the Work. |
1.8 QUALITY ASSURANCE
   A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum [thirty (30)] years [documented] experience.
   B. Installer: Company specializing in installing the Products specified in this section [authorized or certified in writing by the product manufacturer].
   C. Conform to CISCA requirements.

1.9 REGULATORY REQUIREMENTS
   Use this article when a special code, regulation, or constructed assembly applies to the project; delete this article if none apply. Coordinate Regulatory Requirements with the UL assembly ratings indicated in the System Description article above.
   A. Conform to applicable code for fire rated assembly.

1.10 DELIVERY, STORAGE AND HANDLING
   A. Section [01 61 00]: Transport, handle, store, and protect products.
   B. Deliver products in their original packages, unopened, undamaged containers with identification labels intact.
   C. Store cartons laid flat, protected from exposure to sun, high temperatures and humidity conditions as recommended by the manufacturer.

1.11 WARRANTY
   This article extends the warranty period beyond the one (1) year contract warranty period. Extended warranties add to construction cost and may present difficulties to the Owner by enforcing them. Specify with caution.
   A. Section 01 78 10: Warranties.
   B. Provide a twenty-five (25) year warranty including coverage from product manufacturing defects.

Part 2 Products

2.1 MANUFACTURERS
   A. Product and Manufacturer - Basis of Design:
      1. CeilingMAX Surface-Mounted Grid System by Acoustic Ceiling Products
         PO Box 1581
         Appleton, WI, 54912-1581
         TEL: (800) 434-3750; FAX: (800) 434-3751
         Email: support@acpideas.com
   B. Substitutions: [Refer to Section 01 62 00] [Not permitted].
2.2 PERFORMANCE CRITERIA

Edit this article carefully; restrict statements to identify assembly or system performance requirements or function criteria only. Delete paragraphs not appropriate to the project. Performance specifying permits system manufacturers the latitude to adjust or redesign proprietary systems to achieve requirements specified in this section.

A. Assembly Duty Class when tested to ASTM C635: Intermediate duty; load rated up to \(<5.4 \text{ kg per } 300 \text{ lineal mm} \rangle \langle <12 \text{ lbs per lineal ft} \rangle\).

B. Fire Classification (ASTM E84):
   1. Standard Components:
      b. Smoke developed index (SDI): 140.
   2. Foil-Faced Components:
      b. Smoke developed index (SDI): 250.

C. USFDA approved for use in food processing applications.

2.3 MATERIALS

A. Material:
   1. Material: Virgin grade polyvinyl chloride (PVC) plastic.
   2. Foil Laminated Components: ABS (acrylonitrile butadiene styrene terpolymer) plastic, laminated with hot stamping foil.

2.4 CEILING GRID COMPONENTS

A. Dimensions:
   1. Exposed Face Profile: \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\).
   2. Total Assembly Thickness: \(<27 \text{ mm} \rangle \langle <1-1/8 \text{ inch} \rangle\) projection from supporting structure.
   3. Top Hanger: \(<2440 \text{ mm} \rangle \langle <96 \text{ inch} \rangle\) length x \(<38 \text{ mm} \rangle \langle <1-1/2 \text{ inch} \rangle\) wide x \(<12 \text{ mm} \rangle \langle <15/32 \text{ inch} \rangle\) deep.
   4. Cross Tee: \(<584 \text{ mm} \rangle \langle <23 \text{ inch} \rangle\) length x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) wide x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) deep.
   5. Special Cross Tee: \(<635 \text{ mm} \rangle \langle <25 \text{ inch} \rangle\) length x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) wide x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) deep.
   6. Wall Bracket: \(<2440 \text{ mm} \rangle \langle <96 \text{ inch} \rangle\) length x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) wide x \(<27\text{mm} \rangle \langle <1-1/8 \text{ inch} \rangle\) deep.
   7. Snap-in Runner: \(<2440 \text{ mm} \rangle \langle <96 \text{ inch} \rangle\) length x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) wide x \(<24 \text{ mm} \rangle \langle <15/16 \text{ inch} \rangle\) deep.

The special 25 inch cross tee is used when installation is started at the room’s edge with a full border tile. This occurs when room dimensions are exactly divisible by 2 (e.g., 12’, 28’, etc.)
B. Grid Layout: [As indicated] [<610 x 610 mm> <<24 x 24 inches>>] [<610 x 1220 mm> <<24 x 48 inches>>].

2.5 ACCESSORIES
A. Grid Accessories: [Model 170 Suspension Clip] [Model 180 Concrete Clip] [Model 190 FRP Clip] as required for surface mounted grid system.
B. Acoustic Sealant For Perimeter Moldings: As recommended by grid manufacturer.

C. Adhesive: Synthetic water-based adhesive;
D. Tools: [Site-cutting tools,] [and] [________] for installing grid assembly.

2.6 FINISHES
Contact the manufacturer for availability of custom colors and patterns.
A. Exposed Components:
   1. Solid Colors: [White].
   2. Metallic Foil-Faced Finishes: [Satin Black][Brushed Aluminum][Argent Silver][Argent Bronze][Copper Fantasy][Bermuda Bronze][Moonstone Copper][Cracked Copper][Muted Gold][Cross Hatch Silver][Polished Copper][Smoked Pewter][Oil Rubbed Bronze][Argent Copper][Galvanized Steel][Brushed Nickel].

Part 3 Execution

3.1 EXAMINATION
A. Section [01 71 00]: Verification of existing conditions before starting work.
B. Verify that layout of grid will not interfere with other work.

3.2 INSTALLATION
A. Install assembly in accordance with manufacturer's instructions and as supplemented in this section.
B. Lay out assembly to a balanced grid design with edge units no less than 50 percent of acoustic unit size.
[OR]
C. Locate assembly on room axis according to reflected ceiling plan.
D. Install grid members to substrate.

E. Mount assembly independent of walls, columns, ducts, pipes and conduit.

F. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

G. Perimeter Molding:
1. Install edge molding at intersection of ceiling and vertical surfaces into bead of acoustic sealant.
2. Ensure placement of sealant is not visible after molding installation.
3. Use single piece longest practical lengths.
4. Miter corners.

The following paragraph describes the need for ceiling grid expansion joints where a ceiling passes under and across the vertical plane of a building expansion joint. Most expansion joints require two (2) parallel tees usually spaced to the same measurements as the building expansion joint - usually 1 or 2 inches. Each tee is supported over its length to each respective side of the building structural member.

H. Form expansion joints [as detailed.] [with two (2) parallel tees spaced [<25 mm><<1 inch>>] [<50 mm><<2 inches>>] apart, supported from each respective structure above.]

3.3 SCHEDULE

Provide a schedule when various ceiling locations, ceiling assembly types, acoustic unit designs, or other variables require listing for clarity. Use a table if there are numerous varieties. The following are examples to illustrate a scheduled item:

A. Public Areas: <600 x 1200 mm><<24 x 48 inch>> surface mounted grid assembly, [_____] color; for [square][reveal] edge style ceilings panels by Section [09 51 13].